p1029: Combine Like Terms (v5)

Example

Combine like terms.

$$-8x^2 + 2x^2 - x^2 + 6x + 8x + 7 + 4 - 5 - 3x + x^2$$

Answer

Combine the quadratic terms.

$$-8x^2 + 2x^2 - x^2 + x^2 \equiv -6x^2$$

Combine the linear terms.

$$6x + 8x - 3x \equiv 11x$$

Combine the constant terms.

$$7 + 4 - 5 \equiv 6$$

The final result:

$$-6x^2 + 11x + 6$$

Question 1

Combine like terms.

$$-1 + x^2 - 5x^2 + 8x^2 + 6x - 7 - 9 + 5x - 4x - 2$$

$$4x^2 + 7x - 19$$

Question 2

Combine like terms.

$$-9x^2 + 6 - 4x^2 - 6 + 9x + 8x^2 - 8 + 2x - x + 4$$

$$-5x^2 + 10x - 4$$

Question 3

Combine like terms.

$$-x^2 + 9x + 7x - 9 - 4x^2 + 6 + 5x - 8 - 3x^2 - 2x^2$$

$$-10x^2 + 21x - 11$$

Question 4

Combine like terms.

$$4x^2 - 1 + 9x + 3x - 3x + 2x^2 - 6 - 5 + x^2 + 5x$$

$$7x^2 + 14x - 12$$